Volunteer Firemen

OCTOBER

1940

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston, Massachusetts

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Mack TRIPLE-THREAT TO FIRES

MACK PERFORMANCE

Mack Fire Engines, extra-speedy on the getaway, sweep ahead of the field on straight stretches and steep grades—take long hours of pumping in their stride. *Specific* design for *specific* fire-fighting functions gives each Mack unit superior stamina and efficiency—a higher peak of performance.

MACK SERVICE

Mack's service actually provides *70* direct factory branches. Strategically covering the country from coast to coast—to make certain that skilled and economical service can be had quickly.

MACK RESOURCES

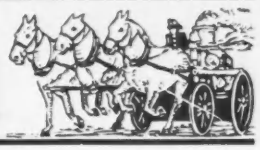
Mack's factory and engineering resources—largest in the entire country—make possible constant shop and laboratory experiment. Make Mack units better units. Mack resources mean, also, that *any* unit can be replaced at *any* time. Macks are never "orphans"!

●

The Mack Fire Apparatus Line includes triple and quadruple pumpers from 200 to 1500 gallon capacity, hose wagons, city service ladder trucks, squad cars and crash cars—comprising 14 distinct and specialized models. Mack is proud of building the best. We invite comparison. We solicit inquiries.

MACK MANUFACTURING CORP.
Fire Engine Division, New York, N.Y.

Volunteer Firemen



Volume 7 Number 10

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DOMINO
The
Mild
CIGARETTE
CARE!
Every year in the United States over 40,000 forest fires result from carelessness with matches and cigarettes.
Enjoy your cigarettes and your forests, but don't let the one destroy the other.
Break your match in two before you throw it aside. Be sure your cigarette is dead out before you throw it away.
Reg U S Pat. Off

"FROM all of the evidence that we can get, it is quite clear that the careless disposal of lighted matches and cigarettes is the principal cause of fires. It seems to me that we have fallen into the habit of deploring the careless smoker but rather assuming a defeatist attitude about him." The foregoing is from the annual address made by General Manager Percy Bugbee to the N.F.P.A. Annual Meeting this year. Mr. Bugbee said further,

"A short time ago I was interested to read in one of the New York newspapers that Mayor LaGuardia had appealed to all of the manufacturers of chewing gum to help him to eliminate the costly nuisance of cleaning gum off of the streets and subways of New York. The gum companies are evidently sensitive to public opinion, for they have responded to the mayor's appeal and are including in their advertising in New York and in other cities a caution to gum chewers to be careful about the disposal of gum. Why should we not expect the cigarette manufacturers to recognize their responsibility to the public by a simple and friendly suggestion to smokers that they be careful about the disposal of lighted matches and cigarettes? The cigarette companies are our greatest advertisers—over the radio, in newspapers and magazines, and on billboards. It seems to me that they have a responsibility to the public to reduce deaths, injuries and property loss from fires caused by careless smokers. We propose to invite such action."

The careless smoker is a special pain in the neck to those charged with forest fire control. One man noted that a prominent brand of cigarettes carried on its cover a testimonial to the effect that this brand of smokes were a kind which tasted grand on a hunting trip. "No wonder," he wrote the U S. Forest Service, "we have forest fires." David Godwin of the U. S. Forest Service and Chairman, N.F.P.A. Forest Committee, began a correspondence with the cigarette manufacturer in question and the new Domino pack above was the result. The message was prepared by the Forest Service. Larus and Brother Company, Inc., the makers of Dominos, apparently think a public-spirited message like this is good business. So perhaps will other manufacturers.

WITH the current issue, VOLUNTEER FIREMEN begins its eighth year of publication. In the short space of seven years the magazine has become by far the most widely read publication in the fire department field.

Much of this remarkable growth has been due to the friendly word passed along from one member to another. Any fireman or fire department can become a member of the N.F.P.A. All members receive the various publications as issued. Readers may know of fire departments, individuals, or business concerns which might find N.F.P.A. membership valuable. Why not ask them to join?

LAST month 2 departments with 20 men joined the Volunteer Firemen's Section for the first time. In addition 33 departments with 724 men renewed membership. This makes the total enrollment 678 departments and 14,561 men. The following departments are newly enrolled:

Kalamazoo Vegetable Parchment Company, Fire Department, Parchment, Michigan.

Las Vegas Fire Department, Las Vegas, New Mexico.

THE estimated U. S. fire loss for August, 1940, according to the National Board of Fire Underwriters is $20,722,100. This figure is based on notices of incurred loss received by insurance companies, members of the board, plus an allowance for unreported and uninsured losses. Losses for the first eight months of 1940 are now slightly less than losses for the same eight months of 1939. The following table shows the losses for these months of 1939 and 1940:

	1939	1940
January	$27,615,316	$36,260,650
February	29,303,520	34,410,250
March	30,682,168	29,788,800
April	27,061,522	26,657,190
May	27,031,700	23,446,590
June	24,190,700	19,506,000
July	22,468,304	20,322,800
August	22,800,500	20,722,100
Total 8 months	$211,153,730	$211,114,380

Working with Children in Junior Fire Fighter Clubs

ALMOST every fire department has at one time or another engaged in some campaign to secure the cooperation of school children. Through children, adults will accept instruction in fire prevention matters. As long as ignorance and indifference play such a large part in the day to day list of fires, such education is of great practical importance.

The fire department of Akron, Ohio, has demonstrated one successful method of child education through junior fire fighter clubs organized in public and private schools. The Akron program reaches nearly 20,000 boys and girls between the ages of 8 and 13 years. It is in charge of the fire department's Fire Prevention Education Bureau of which Park L. Roberts is Director.

Director Roberts and his staff visit each school once in every two weeks during the school year. At this time they conduct a ½-hour lecture and demonstration meeting. This is not a formal or "dry as dust" lecture, but is run as a club meeting. The children themselves have developed much of the material, particularly for a manual which is used in connection with a regular course of instruction which is covered during the club meetings. Even motion pictures have been made in which the children themselves were the characters and these are shown at club meetings.

The practical character of instruction is shown by the following list of subjects which are discussed at the meetings:

1. Room by room common fire hazards.
2. Self home inspections.
3. The first five minutes.
4. Sounding the alarm.
5. Emergency exit drills.
6. The fire department and fire traffic.
7. Stoves and furnaces.
8. Matches.
9. Indoor and outdoor open fires.
10. Adequate home wiring.
11. Using electricity safely.
12. Flammable liquids.
13. Gas and cooking.
14. Careless smokers.
15. First aid fire extinguishers.
16. First aid to the injured.
17. House cleaning.
18. Recreation with safety.

At the conclusion of each semester, attractively engraved merit award certificates are given to children who cooperate by making appropriate fire hazard inspection reports on their homes. During the past year, more than 6,000 school children made home inspections and otherwise qualified for these certificates.

Like numerous other states, Ohio has a law requiring that fire prevention be taught in the schools. In Akron, because of the junior fire fighter clubs, the children have a lot of fun in carrying out the intent of the law.

Baby Sandy of Universal Pictures really knows better than to play with matches. Here she is posing for the Los Angeles Fire Department to help in the educational work fire departments will do during Fire Prevention Week, October 6 to 12, and throughout the rest of the year.

A Score Card for Fire Apparatus Drivers

DO you drive fire apparatus? Do you think you drive correctly? Safely? This apparatus drivers' score card was designed by the Delaware County Firemen's Association of the State of Pennsylvania. Allow yourself from one to five points according to how you answer the questions below. A perfect score is 80.

1. DO YOU remember that the safety of your fellow firemen is entrusted in your care?
2. DO YOU keep apparatus under complete control at all times?
3. DO YOU proceed at intersections with caution, remembering that the careless "other fellow" may be the cause of your apparatus and crew failing to reach the fire?
4. DO YOU keep in mind that the first consideration is to get to the fire and to be able to go into service and that speeding is secondary or do you drive at an excessive speed?
5. DO YOU shift into second gear until apparatus is clear of the fire house and you have an unobstructed view of street traffic conditions?
6. DO YOU know that at a speed of 20 miles per hour, the average apparatus will continue to travel approximately 60 feet before it can be brought to a complete stop?
7. DO YOU know that modern brakes, if applied too rapidly, may be as disastrous in effect as slow application?
8. DO YOU under ordinary conditions, and particularly in adverse weather, refrain from disengaging the clutch when braking until the last few feet of travel?
9. DO YOU ever attempt to back apparatus until it has been brought to a full stop?
10. DO YOU race motor when standing still?
11. DO YOU engage clutch gradually?
12. DO YOU depress or release accelerator gradually?
13. DO YOU always start apparatus from a standstill in low gear?
14. DO YOU shift gears before the clutch is entirely disengaged?
15. DO YOU always release emergency brake before engaging clutch?
16. DO YOU obey the rules of the road when driving fire apparatus as required by the Motor Vehicle Code?

International

San Francisco firemen made a remarkable stop in this fire at the Golden Gate International Exposition. Fire was confined to the California State Building, one of a group of closely built combustible structures.

Expositions Have First Fire Of Threatening Proportions

IT IS something of a record that the two great expositions now current, the New York World's Fair and the Golden Gate International Exposition, have gone until their second years without a fire of genuinely threatening proportions. On August 24 fire swept and largely destroyed the California State Building at Treasure Island, San Francisco. The building could be likened to a huge wooden box, 56 feet or the equivalent of three stories high, and some 30,000 square feet in area. By itself it approximated the bulk of a good city block.

Exposition authorities would probably protest the observation that fire considerations enter very little into their building plans. But that such a building, which is typical of those erected for exposition purposes, should burn, is no occasion for surprise. The amazing thing is that this is the first big fire.

Credit for this remarkable record is due to the alertness of the fire fighting forces assigned to their respective fairs by the cities of New York and San Francisco. Automatic fire alarms under private central station service were installed in many of the more important buildings. Finally, good policing was provided and plans for handling various emergencies had been carefully worked out. In a report on the fire to which we are indebted for data, the Board of Fire Underwriters of the Pacific stressed the value of these emergency plans in making possible effective work at this fire.

As an afterthought, a wooden addition had been added to the main part of the California State Building. This was some 136 feet long, about 16 feet wide and 15 to 24 feet high. In the main building, automatic fire alarms were installed, but none were installed in the addition when it was built. The fire started in this section where alarms were lacking. Had there been a prompt alarm the fire might have been controlled by a small fire fighting force. The authorities appear to have figured that they had made concessions enough to the possibility of fires when alarms were provided for the main building. For this error in judgment the fire required for its control 53 officers and 252 men from the San Francisco Fire Department with 22 engines, 14 trucks, 5 water wagons, 3 water towers, 1 rescue truck and 2 fireboats, 160 sailors from two U. S. Navy minesweepers and 200 soldiers from Camp Liggett on the Island, as well as unrecorded numbers of men and apparatus from six regular departments of the exposition administration such as Utilities, Public Works, Transportation, Medical, Guards and Guides, and San Francisco Police, State Police and the State Highway Patrol. The sailors laid supplementary hose lines from the bay and state police, exposition guards and soldiers removed works of art and other valuable and historic objects, records, furniture and furnishings from the burned building.

As a fire-fighting job, the building presented serious difficulties. The fire spread through concealed spaces into a 10-foot roof space or cock-loft which covered the entire building. The fire was in this space by the time it was discovered. There was fortunately plenty of water from 8 and 12 inch street mains and from such other sources as lagoons and the bay. Long hose lines and many of them, were required to surround the fire and cut off its spread. In all some 60,600 feet of hose was used. Much of the fire was 40 to 50 feet above the ground. There were no natural fire stops. There was nothing for the fire department to do but to give the fire the works. They appear to have done this with great credit. When they had the fire under control the outside walls were still standing and the fire had been confined to the main building. A feat of no mean proportions was that they saved a large addition some 32 feet high at one end of the main building, and they stopped the fire spread through a 70-foot-high colonnade which led to the San Francisco County Building adjoining.

FIREMEN'S TRAINING

This 1940 Annual Summary Shows Definite Measured Courses of Training Are Now Available in 23 States

The Florida State Fire College, a one-week annual short course, has been held annually for eleven years at beautiful Daytona Beach. J. F. MacMillan, chief of the fire department of Cocoa, Florida, is director of the course. The drill tower shown is specially erected for the College on the grounds of the central fire station.

SEVEN states, Alabama, Florida, Indiana, Iowa, Nebraska, New Hampshire and Vermont, offered firemen definite measured courses of instruction in 1940 for the first time. This brings to 23 the number of states where such "comprehensive" training is available. Nearly 13,000 firemen completed one or more units in such courses during the last school or fiscal year.

Annual short courses were held in 25 states and two Canadian provinces. Regional or district short courses were held in 11 states and the Province of Ontario. In addition field instructors in 12 states and 2 provinces gave training in more than 1200 departments.

Men sent to short courses or instruction schools also carried back to their respective departments some training of a less formal character. Estimates from 23 states indicate that an additional 20,000 firemen received such training besides that reported under the other headings.

Statewide programs are therefore bringing training to some 80,000 firemen a year.

Nearly all of these training programs have been designed for the volunteer or part paid fire department. In addition, there has been training in larger departments with drill towers, drillmasters, and an established training program. Much of such local work is carried out by men who have been to the schools sponsored by the state program.

The figures given in the accompanying tables are a continuation of those published for last year in VOLUNTEER FIREMEN for January 1940. Since most of the programs run concurrently with the usual school year, it is believed that the tabulation is of more value at this time than if presented at the first of the year as has been the case of previous tabulations. The data in the accompanying tables, therefore, has been made to cover the latest school year or the latest fiscal year, or whatever the annual period is for which the local state program compiles data.

There are only seven states which do not now have some form of state-wide training program. These include Arizona, South Carolina, Utah, Idaho, Maine, Montana and Rhode Island. The first three on the list have plans

ANNUAL SHORT COURSES

	Years Held	Cities Represented	1940 Attendance
Alabama	4	26	53
British Columbia	7	18	43
Colorado	10	44	208
Florida	11	67	137
Georgia	6	77	398
Illinois	16	172	584
Indiana	7	97	643
Iowa	16	109	425
Kansas	11	45	126
Kentucky	3	55	246
Louisiana	11	38	59
Maryland	11	45	162
Michigan	12	75	453
Minnesota	13	46	125
Missouri (S. E.)	11	29	100
Missouri (Cent.)	8	57	143
Nebraska	3	55	219
New Mexico	11	26	105
North Carolina	12	71	200
Oklahoma	15	36	59
Ontario	1	31	76
Oregon	11	—	—
Pennsylvania	2	94	160
South Dakota	11	82	716
Texas	11	289	607
Washington	10	93	316
West Virginia	10	54	178
Wisconsin	7	73	310
Total Attendance		1,904	6,851

WORK OF FIELD INSTRUCTORS

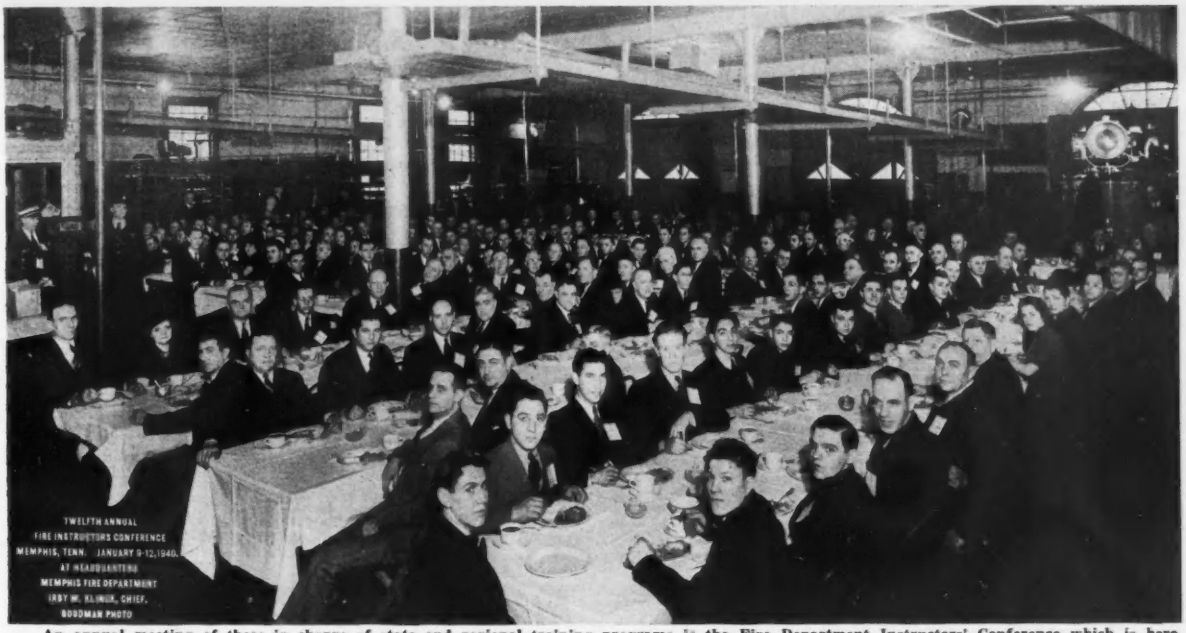
Additional to comprehensive and short courses

	No. Depts. Visited	Ave. Hours Instruction Each Dept.	Total Men Reached
Colorado	26	—	718
Illinois	162	4-5	1,592
Indiana	40	20	1,067
Kentucky	28	24	449
Mississippi	45	10	650
Nebraska	30	12½	249
Nevada	23	11	464
New York Nassau County	61	14	10,622
Ontario	20	2	400
Quebec	260	5	5,200
Tennessee	33	10	473
Texas	382	3	8,644
Washington	128	5	2,662
Wyoming	25	30	250
Total Attendance	1,263		33,440

REGIONAL OR DISTRICT SHORT COURSES

(One Day to Two Weeks)

	No. Schools	Cities Represented	1940 Attendance
Arkansas	16	56	444
Georgia	3	20	230
Indiana	19	96	1,363
Iowa	7	91	698
Kentucky	2	35	81
Louisiana	7	23	306
Minnesota	9	321	1,254
Nebraska	5	118	619
North Dakota	5	135	1,086
Oklahoma	6	17	136
Ontario	4	77	296
Vermont	10	18	310
Totals	93	1,007	6,823



An annual meeting of those in charge of state and regional training programs is the Fire Department Instructors' Conference which is here shown at a luncheon session in the central fire station Memphis, Tenn. The Memphis Fire Department, Irby M. Klinck, Chief, is joint sponsor of the conference with the Fire Prevention Department of the Western Actuarial Bureau of which Richard E. Vernor is Manager. Mr. Vernor is Vice-President of the National Fire Protection Association.

which will probably result in school programs being undertaken during the forthcoming year. Plans are also being made in the Province of Nova Scotia for a training program.

It's hardly possible to single out for special attention any of the schools or school programs which might be spoken of as the "best." Mention might be made of certain programs which are typical of the various types of training available. The annual school in Texas held this year for the eleventh year brought 607 firemen from 289 cities to the Agricultural and Mechanical College of Texas for four and one half days, or a total of 38 hours of intensive instruction. Louisiana has a training program the key note of which is seven regional schools for instructors. Among the states where field instructors are operating, Wyoming is able to average 30 hours of instruction per department by a field instructor in the departments visited.

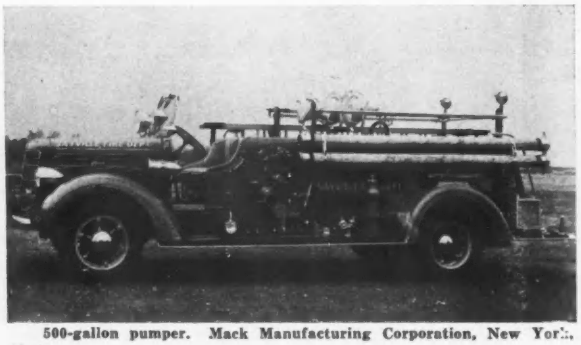
Comprehensive programs are in general directed by the state department of education, usually through its vocational division. Courses offered under this form of program are beginning to form definite patterns. With minor local variations, the programs in Alabama, Florida, Indiana, New Mexico, Oklahoma and Pennsylvania, follow the same general approach. Courses offered in Maryland and West Virginia and Ohio are similar but with a slightly different emphasis in the choice of subject matter and the arrangement of classes. Most other states are developing patterns more or less their own.

COMPREHENSIVE TRAINING COURSES

	Total Hours In Course	No. Units In Course	No. Units in which Instruction Was Given 1939-40	Departments Represented in Classes	No. Men Completing One or More Units 1939-40
Alabama	—	—	—	25	—
Arkansas					
Introductory	10	1	1	25	168
Advanced	66	11	1	2	78
California	—	16	11	190	3,425
Connecticut	72	3	3	74	146
Delaware	144	48	—	20	270
Florida	180	6	6	32	93
Georgia	24	19	—	2	178
Indiana	240	10	2	40	456
Iowa	20	1	1	8	38
Louisiana	60	13	12	22	306
Maryland					
Basic	75	—	—	51	338
Advanced	69	—	—	60	222
Massachusetts					
Zone Schools	10-24	—	—	62	266
Local Schools	10-20	—	—	40	576
Nebraska	—	—	—	—	—
New Hampshire	16	8	8	24	137
New Jersey					
South Jersey	84	42	3	—	79
Union County	30	18	18	9	120
New Mexico	10	1	1	16	166
New York					
Nassau County	14	—	—	61	583
Ohio	40	18	18	16	308
Oklahoma					
Introductory	10	1	1	24	372
Advanced	268	10	4	47	915
Pennsylvania	54	11	11	345	2,528
Vermont	24	—	—	7	10
Virginia	30	—	—	35	735
West Virginia	60	12	12	17	390
Totals				1,254	12,903

Presenting the Latest Style De

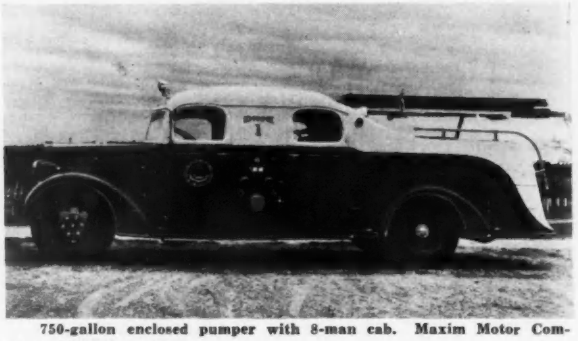
Safety Is the Keynote in This Display of Up-to-the-minute Pumper Designs Which Many Fire Companies Will Purchase This Fall



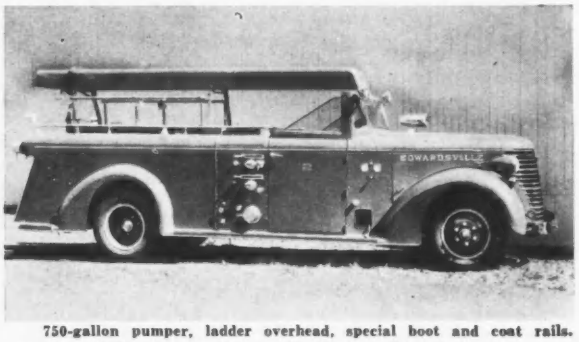
500-gallon pumper. Mack Manufacturing Corporation, New York, N. Y.

500-gallon pumper. Ward LaFrance Truck Corporation, Elmira, N. Y.

750-gallon enclosed pumper with 7-man cab. Peter Pirsch and Sons Co., Kenosha, Wis.

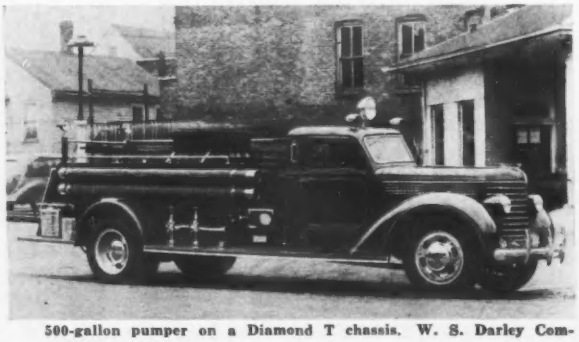


750-gallon enclosed pumper with 8-man cab. Maxim Motor Company, Middleboro, Mass.



750-gallon pumper, ladder overhead, special boot and coat rails. American LaFrance and Foamite Corporation, Elmira, N. Y.

500-gallon pumper on GMC chassis. Howe Fire Apparatus Company, Anderson, Ind.



500-gallon pumper on a Diamond T chassis. W. S. Darley Company, Chicago, Ill.

750-gallon pumper with four-door cab. Buffalo Fire Appliance Corporation, Buffalo, N. Y.

Developments in Modern Pumpers

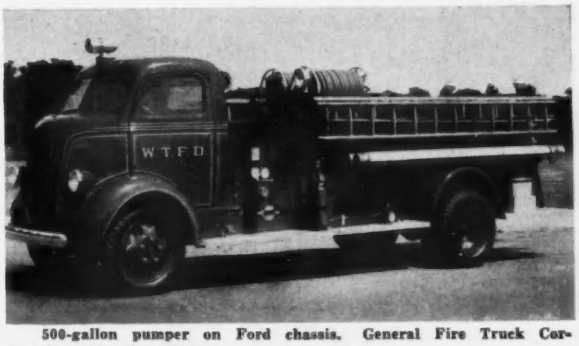
Trend Is toward Greater Protection for Firemen, Better Visibility for Drivers, and Enclosures for Equipment

500-gallon pumper on a GMC chassis. Sealand Corporation, Bridgeport, Conn.

750-gallon pumper. Sanford Fire Equipment Corporation, Syracuse, N. Y.

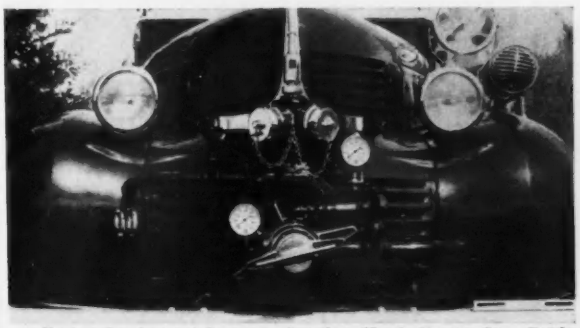
500-gallon special enclosed pumper with 6-man cab. Autocar Co., Ardmore, Pa.

750-gallon pumper with 7-man cab. The Seagrave Corporation, Columbus, Ohio.

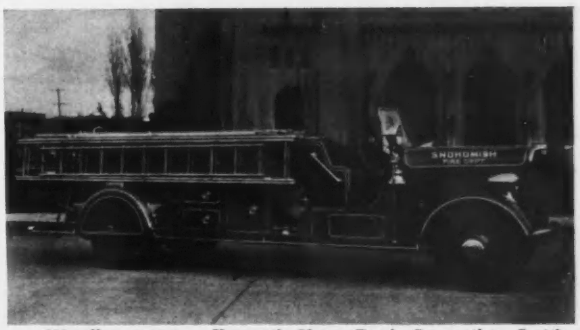


500-gallon pumper on Ford chassis. General Fire Truck Corporation, Detroit, Mich.

200-gallon pumper on International chassis. Luverne Fire Apparatus Company, Luverne, Minn.



Barton front-mounted pump (American-Marsh Pumps, Inc., Battle Creek, Mich.) on a Dodge chassis.



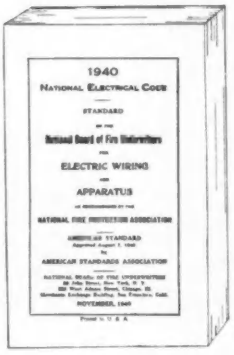
600-gallon pumper. Kenworth Motor Truck Corporation, Seattle, Wash.

New National Electrical Code

1940 Edition of N.F.P.A. Wiring Rules Out—These Regulations Have Made Possible Widespread Safe and Economical Electrical Service

THE National Fire Protection Association presents a new edition of the National Electrical Code, prepared by its Electrical Committee and published by the National Board of Fire Underwriters. This 1940 edition is of special significance since it will more or less automatically become the law for electric wiring in thousands of cities in the United States and also in many jurisdictions where electric wiring is regulated by the state government. In fact, it will be enforced wherever electric wiring is used since the National Electrical Code is also the basis of underwriters' requirements and is followed as good practice by manufacturers and electrical contractors even where there is no specific local regulation of electric wiring.

The National Electrical Code is only one of some 115 standards produced by the N.F.P.A. Few of the other standards, however, have a more far-reaching effect. The National Electrical Code has made possible the widespread use of electricity under safe conditions. Furthermore, uniformity of electric requirements has done much to make



electrical power and light available to every home and place of business in the country at economical cost.

Electrical fires are responsible for a greater fire loss in the United States and Canada than any other cause. But balanced against this is the tremendous consumption of electrical power. Because of the National Electrical Code enforcement, it is possible for any person to have electricity installed in his home or place of business with assurance that it is a safe as well as convenient form of light, heat and power.

The National Electrical Code is not an arbitrarily drafted set of rules, but represents the consensus of opinion of the members of the N.F.P.A. Electrical Committee. This committee attempts to make the Code rules keep pace with electrical developments by issuing every few years a new edition in which are incorporated advances in electrical wiring practice that have become recognized as safe and sound.

You may call upon the N.F.P.A. Electrical Field Service in connection with problems relating to the adoption of local wiring regulations. If your community does not now have regulation of electric wiring installations, write for suggestions as to how to go about setting up electrical inspection service and local electric wiring regulations. Please note that the N.F.P.A. Electrical Office is in Chicago rather than at the N.F.P.A. headquarters in Boston. Address: Victor H. Tousley, Electrical Field Engineer, National Fire Protection Association, 612 North Michigan Avenue, Chicago, Ill.

Electrical Committee of the
National Fire Protection Ass'n
Meeting Room - Hudson Hall
Asbury Park City N.J. December 5. 1939.

Men distinguished in the electrical field draft the National Electrical Code. This is the Electrical Committee of the National Fire Protection Association whose members and alternates, approximately 50 of each, are shown at the meeting at which the 1940 National Electrical Code was completed. Chairman of the committee is Alvah Small, who is President of Underwriters' Laboratories, Inc.

The "Model A" Super

Which Every Volunteer Fire Department Should Know About

Both 1 Quart and 1½ Quart Sizes

Every volunteer Fire Department should know the exclusive qualities of this first-aid extinguisher which experience shows should be the first to be carried into any fire because:—

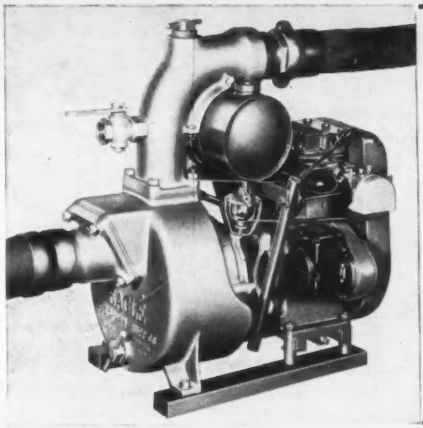
FIRST:—
It is safe to use on electrical fires. Fyr-Fyter fluid is not only a powerful fire extinguishing fluid, but a most certain insulation—safeguarding the operator against serious injury or possible death from electrical contact.

AND SECOND:—
It is effective on concealed fires in walls and other "hard to reach" locations and is effective also on fires in greases, oils and the more flammable liquids.

SALESMEN WANTED

If you are interested in adding to your income by spare time work or in building a permanent business for yourself without investment in stock, fixtures, etc., write for our new Dealer's Plan to

THE FYR-FYTER COMPANY
Dept. 20-58 DAYTON, OHIO



Get water to your pumper with this

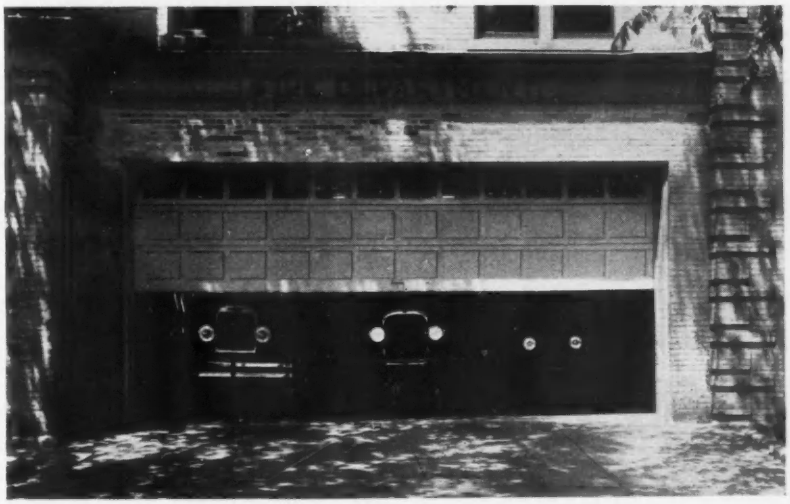
PORTABLE BOOSTER PUMP

Pumps from Well - Lake - Stream, through 200 feet of fire hose.

- Easily carried by two men
- Occupies but little space
- The price is surprisingly low

Descriptive Circular Sent On Request

THE GORMAN-RUPP CO.
Mansfield, Ohio



For Fire Departments Large and Small, The Barcol OVERdoor Suits them All!

LOOK FOR BARCOL THIS MARK

WE show a typical Fire Station in West Bend, Wisconsin. The door is a single Barcol OVERdoor of standard construction, made to fit the opening, and electrically operated. Other stations often use one or more doors of smaller size. The Barcol OVERdoor will give you thorough protection for your equipment, easy operation, durability, and very low maintenance cost. Please write for particulars.

BARBER-COLMAN COMPANY, ROCKFORD, ILL.

A PICTURE of a triple combination pumper made by the American Fire Apparatus Company of Battle Creek, Mich., for the city of Stigler, Okla., was received too late for inclusion in the display on pages 8 and 9. This picture shows a Chevrolet 1½-ton truck with a Barton 500 G.P.M. front-mounted pump, a 1,000-foot hose body and a reel of booster hose. A 300-gallon booster tank is in two pieces, one a filler section placed in the front end of the body and the second a flat tank located under the hose bed.

TWO new pieces of Autocar fire apparatus have been contracted for by the Borough Council of Downingtown, Pa. One of these is a quadruple combination to cost $11,175, the other is a triple combination costing $7,850.

MACK Trucks, Inc., announces that they recently delivered to the town of Foxboro, Mass., a truck built particularly for forest fire fighting. It carries a 300-gallon booster tank with a 200-G.P.M. pump, reels for 500 feet of ¾-inch hose and a large rear reel for 1200 feet of 1½-inch hose. Shelves on each side of the unit provide space for batteries of "Indian" pump cans and a special compartment behind the driver's seat allows space for a portable forest fire pump.

THE D. B. Smith Company, 413 Main St., Utica, N. Y., manufacturers of "Indian" fire pumps, have issued a 20-page booklet giving the football schedules of all the major teams for the 1940 season. They will be glad to send one on request.

NEW PUBLICATIONS

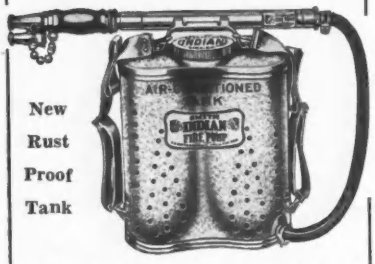
Simplified Hydraulics for Fire Departments (Fire Insurance Division, Board of Insurance Commissioners, Austin, Texas, 32 pages). A booklet prepared primarily for use of Texas fire departments, including the principal hydraulic reference tables and a form for recording fire engine tests.

Fire Protection and A.R.P. Year Book, 1940-1941 (Lomax, Erskine and Company, Ltd., 6 Tower Hill, London, E.C.3, 348 pages, 7/6 post free). A directory of English and British Empire fire brigades and officers, together with certain data dealing with war fire problems. Some of the subjects covered are gas decontamination, the effect of bombs, both explosive and incendiary, and fireproofing compounds. The hydraulic tables commonly used by British fire departments are included.

STOP
FIRES
In Buildings, Rooms, Roofs---
Fires in Rubbish and
Partitions
QUICKLY
THIS
WAY

INDIAN

Fire Pumps alone will handle 75% of your calls. No hose to lay. Water damage held to a minimum. Portable by hand or knapsack fashion. Save time money, effort—use INDIANS on all Class A fires. Just keep 5-gallon tank filled with clear water. Pump throws powerful, high pressure stream. Truck carrying racks available.



New
Rust
Proof
Tank

Let us send illustrated catalog in full color describing the many uses fire departments have for INDIANS. These all purpose fire fighters will give YOU more year 'round service than any other equipment. Write us today for catalog and prices.

D. B. SMITH & CO.

413 Main St., Utica, N. Y.

PACIFIC COAST AGENTS:

Hercules Equipment & Rubber Co.
550 Third Street
San Francisco, Calif.

Western Loggers' Machinery Co.
302 S.W. 4th Street
Portland, Oregon

Mill and Mine Supply, Inc.
2700 Fourth Ave. South
Seattle, Wash.

Roy G. Davis Co.
617 East Third St.,
Los Angeles, Cal.

THE SABOTAGE PROBLEM

Industrial Fire Brigades and Municipal Fire Departments Must Work Together on This One

By Emmett T. Cox
Assistant Director, Indiana Fire Service Training Schools

From a paper read at the Oklahoma State Fire School

HOW easy it would be for some one to drop in a fire station and do some little thing to a fire truck that would make it inoperative!

To those of you who do not have a man on watch at all times, by all means, lock all doors to the truck room when you retire for the night.

Volunteer departments face even a more dangerous situation. Your stations must be locked at all times. This may seem hard, for it would be unhandy for each member to carry a key. You might place a key in a small box with a glass front similar to a fire alarm box; then the first man arriving could break the box and enter. You will find that this will be a good protection, for the saboteur will not risk doing anything that might throw suspicion on himself or give alarm before the actual act is to be committed. Fires started from sabotage will be so carefully planned that we may not suspect them; so let us be on our guard at all times and not be misled.

What can we as firemen do as a matter of prevention against sabotage?

If we are to do a good job we must know something about the methods used by those who would attempt sabotage.

In order that a fire or explosion be more effective in an industrial plant, private fire protection will be made ineffective, by:

1. Damaging or closing the valves controlling the flow of water.

2. Rendering the fire extinguishers ineffective by adding some foreign material.

3. Damaging private fire hose so that it will not stand up under fire service.

4. Changing automatic sprinkler heads so they will not release properly in event of fire.

The aid to be rendered by the municipal fire department will be prevented or lessened by:

1. Interfering with the alarm service so as to cause a delayed alarm: (a) Attacking the watchman on duty so that he will be unable to send in an alarm, (b) Interfering with telephone service and alarm service so the fire alarm cannot be transmitted in the proper way. To those who have alarm stations let me urge every care and caution possible in protecting that unit, especially at night, (c) Rendering ineffective the electric siren of smaller departments, so that the alarm cannot be sounded, thus preventing the firemen from knowing about fires.

2. Destroying the pumping facilities supplying the fire hydrants. In event of a fire or explosion in one of our industrial plants a police officer or officers should be dispatched immediately to pumping stations to insure that no interference exists there.

3. Tampering with fire hydrants, making it impossible for the fire department to make connections.

4. Closing street valves in our water main systems.

Above all things, there must be perfect cooperation between industrial and municipal departments, and in the event that no industrial department exists within a factory, then the maintenance department is our next consideration.

One municipal fire chief has this to say: "Industrial fire departments are an aid to the city department in that such establishments are fire minded."

This chief is not very encouraging.

Another chief has this to say: "They are trained and handle hose and ladders fairly well, sometimes they hold the fire in check until we arrive." Not much encouragement there, either.

We find another chief that has this to say: "I depend more on the industrial fire department to stop the fire than I do my own men, because they are on the job and are very familiar with every detail within the plant." This sounds more as if this chief has cooperation in the proper way.

Now let's see what the industrial chiefs have to say: One says: "My men are highly trained to handle the protective devices in our plant and are capable of taking care of the ordinary fires, but are aware of the fact that they must have help on the larger fires."

Another says: "We extinguish practically all our fires, but always call the city department. When they arrive we have trouble convincing them that the fire is out. They do not think we know our job."

Still another says: "My men are first on the scene of the fire and are drilled to handle small fires. I have wonderful cooperation with the city department. When they arrive no time is lost in getting into action."

The industrial department, as a rule, is made up of workers in the plant.

These men are assigned work to do in fire prevention. They are also trained how to handle fire fighting equipment on hand. They are working in and around the very materials that are subject to fire and are able to make their way about in the dark. This fact alone makes them a great asset to the municipal fireman.

For proper co-operation it is necessary that both departments have a complete understanding of each other's problems. This may be brought about by a complete inspection of the plant, participated in by officers from both departments.

Some of the important items brought out in this inspection are:

1. Name of building and location.
2. Watchman service.
3. Fence and window protection.
4. Gates and where they lead; the type of locks used.
5. Complete list of industrial firemen, their phones and street numbers.
6. Alarm system.
7. Training.
8. Complete list of industrial equipment.
9. Inside hydrants.
10. Ladders.
11. Number and size of pumpers, ladder wagons answering from city; first and second alarms.
12. Number of men answering first and second alarms.
13. Construction of buildings and exposures.
14. Arrangements for industrial men to guide municipal department in event of fire.

Many other things may be covered by this inspection, which brings about an understanding between the industrial and municipal departments. I would suggest you contact your state fire marshal's department and your inspection bureau. One or both will be in a position to assist in this type of work.

When an emergency occurs in a city or community, the first to be called will be the fire department. Are we prepared? Our people are depending on us men as firemen for protection. Let us do our job! If we do not get into industries and set up the proper machinery to prevent disasters which are bound to result from sabotage, then we are aiding foreign agents in their work of destroying our country from within.

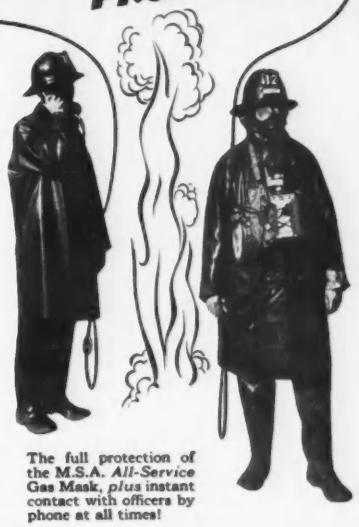
Let it never be said of a single fireman, either municipal or industrial, that "he failed to prepare himself to meet the existing emergency." Through use of books, which stimulate reasoning and constructive thinking, may we improve the service we represent, thereby causing it to rise in the estimation of those whom we serve.

ALL SERVICE GAS PROTECTION

with 2 WAY VOICE COMMUNICATION!

the M.S.A. TELEPHONE MASK

A new aid to scientific fire fighting, providing clear, dependable telephonic communication between men wearing masks in remote locations and those outside in fresh air. Orders can be received and information given, rescue squads directed, and other essentials to fire fighting realized without loss of time in reporting conditions. No batteries or power connections are required—all the power used is derived from the voice itself, enabling clear, distinct reception of speech over very long distances. Investigate this great new M.S.A. product—let us give you an actual demonstration, at your convenience!



The full protection of the M.S.A. *All-Service* Gas Mask, *plus* instant contact with officers by phone at all times!

MINE SAFETY APPLIANCES COMPANY
Braddock, Thomas & Meade Sts. · Pittsburgh, Pa.
District Representatives in Principal Cities

UTILITY EQUIPMENT FOR ANY FIRE DEPARTMENT

● This comparatively inexpensive unit "fills in" in many important ways to make any fire department, large or small, better able to do its work.

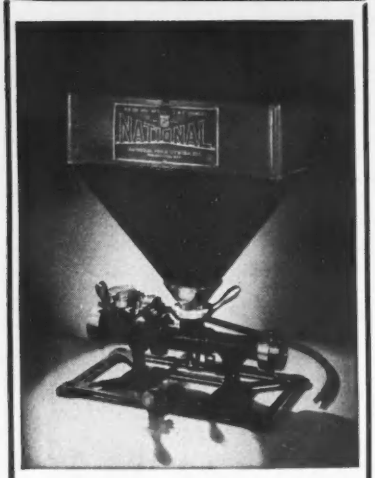
Within its capacity—150 G.P.M. at 100 lbs. pressure—it will do any work required. Readily attached to any passenger car, it will negotiate many roads which a heavy pumper cannot travel. For outlying or farm fires it is therefore ideal.

Also, you will find it useful for dewatering basements or other "clean-up" work after fires or in other emergencies. The self-priming centrifugal pump cannot clog and is not harmed by dirty water.

Full details will be supplied on request.

LABOUR FIRE TRAILER

THE LaBOUR COMPANY, Inc. • Elkhart, Indiana, U. S. A.



SPECIAL EQUIPMENT
FOR FIRE DEPARTMENTS
NATIONAL
SF-21
FOAM GENERATOR
for running board mounting
Capacity—
1100 gallons of foam per minute
Write for details to:
NATIONAL FOAM SYSTEM
INCORPORATED
1633 Sansom St., Philadelphia, Penna.

TIME-TESTED
AND
PERFECTED

THE FEDERAL
VERTICAL
GENERAL ALARM SIREN

The Federal Vertical Siren distributes the sound equally in all directions.

The last word in municipal siren design and performance.

Ask for Bulletin Number 63

Federal Electric Co., Inc.
8717 South State St., Chicago, Ill.

$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

● **IT'S EASY TO WIN!!!**
Have you ever put out a fire with a fire extinguisher? If you have, you can put yourself in line for a cash prize.

● **WRITE A LETTER**
That is all that you have to do. Just write us about an experience where an approved extinguisher of any make did good work in stopping a fire.

● **RECEIVE $10.00 FOR 250 WORDS**
You can, by winning first prize. Decide to be one of the three firemen this month who will take home a cash prize by simply relating an experience with any approved fire extinguisher in this contest sponsored by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN.

● **NO RED TAPE . . . .**
No fancy writing, no formality — merely send your entry to the address given below.

FIRST PRIZE—$10.00

H. J. KEELER, *Chief*
Canisteo Fire Department
Canisteo, N. Y.

Quick Action Did the Trick

Recently our department was called after midnight to a gasoline service station of frame construction, the second floor of which served as living quarters for the owner, his wife and four young children. The only exit from these quarters was an inside stairway having a glass paneled door at the bottom leading to the office and stockroom.

Gasoline had been drained from the tank of a car into a wash tub in the grease pit. The tub had not been emptied, and vapor diffused to the pilot of a water heater twenty feet away. The flame flashed to the tub, igniting the gasoline which set fire to some nearby oily sawdust.

Smoke was detected by the owner from the second floor who rushed down stairs and emptied a 2½-gallon foam extinguisher on the burning tub. He had nearly finished the burning sawdust with a carbon tetrachloride extinguisher when the truck arrived. We had little to do to complete the job.

SECOND PRIZE—$3.00

JAMES WATSON
East Bethlehem Township Vol. Fire Co.
Fredericktown, Pa.

Kills Fire Through Smoke Screen

Some few weeks ago while working at my regular job as Parts Manager of a garage, I had the opportunity to see just how effective a small hand extinguisher could be. One of the other employees in the garage discovered smoke pouring from the warehouse that contained six new cars, ten school buses, and about $500 worth of motor oil. He ran to the telephone and called the fire department, while I snatching up two 1-quart carbon tetrachloride hand extinguishers, ran to the warehouse. The smoke was coming from the upper part of the two-story frame building. Climbing the outside stairs and throwing open the door I was faced with a solid mass of very thick smoke. I started using the hand extinguisher in the general direction of the fire. When I had used the contents of one unit, the smoke cleared showing that I had killed the greatest part of the flame.

Using the other extinguisher, I put out what was left of the smouldering embers before the fire department got to the scene of what might have been a very costly fire.

THIRD PRIZE—$2.00

STEVE MICEK, *Chief*
Duncan Fire Department
Duncan, Neb.

Gas Pump Fire Quickly Extinguished

I operate a grain elevator and am also the fire chief. One day last fall while working in the elevator I heard someone screaming. On looking out I noticed that one of the gas pumps in front of a filling station about a block away was on fire. The lady attendant was crying for help. I grabbed my two 1-quart carbon tetrachloride extinguishers and rushed down. On discharging one of the extinguishers into the pump I had the fire out with very little damage.

The fire was caused by a leaky pump and a short in the electric wiring. If the blaze had not been put out before it cracked the ten-gallon bowl above, a great deal of damage could have been done.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.

2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.

3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.

4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.

5. Only one letter may be submitted each month.

6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.

7. Letters received after the 8th of the month will be judged in following month's competition.

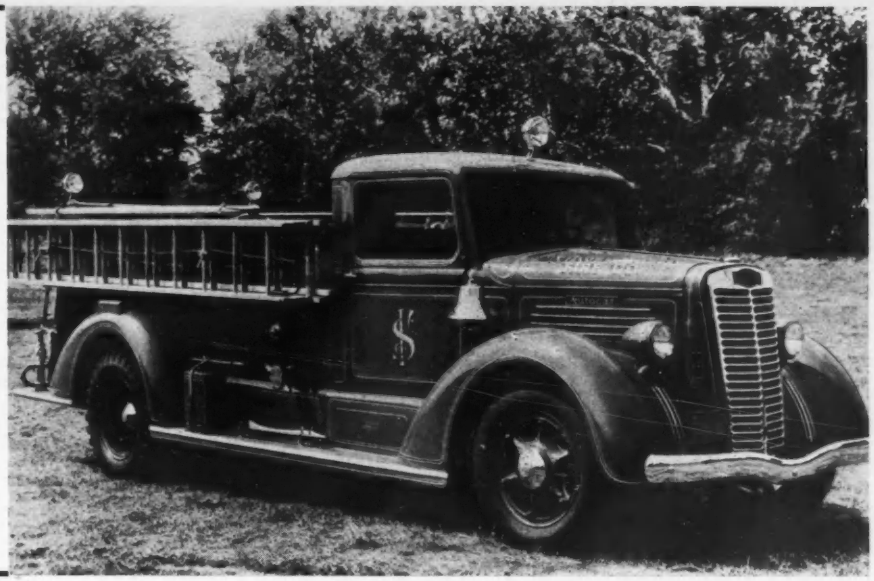
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.

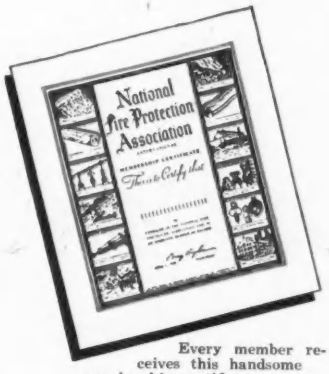
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

MODERN custom-built
FIRE APPARATUS

is now being demanded by all communities, both large and small. This is a custom-built—500-gallon triple combination unit recently delivered to Schwenksville, Pa. It is equipped with special "mud grip" tires because the Schwenksville Fire Company often has to leave the hard roads and travel across open fields. Let us help solve your problems. We make no charge for expert advice.

AUTOCAR
Fire Apparatus
ARDMORE, PA.





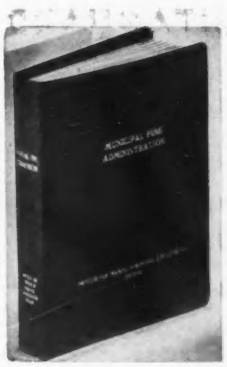
Every member receives this handsome membership certificate.

Membership in the N.F.P.A.

Membership with unusual advantages is available to fire companies and fire departments through the Volunteer Firemen's Section of the National Fire Protection Association. Here's the simple plan:

INDIVIDUAL membership in the National Fire Protection Association costs $10 per year. The membership plan for the Volunteer Firemen's Section is designed to give each fire company the advantages of N.F.P.A. membership. The fire company, as a member, receives at its headquarters a complete set of all regular N.F.P.A. literature, including the *Quarterly* magazine, as issued. In addition, as a special service to the Volunteer Firemen's Section, each fire company holding N.F.P.A. membership is entitled to have copies of the magazine VOLUNTEER FIREMEN sent to the home addresses of 10 firemen each month. If more than 10 firemen want to receive the magazine, an additional one dollar should be sent in with the membership fee for each fireman in excess of 10 enrolled.

Because of the large amount of material mailed to members, not less than $10 can be accepted from any company.



Nominal fee of $25 for the course covers 600 page text, the course of lessons and personal review and correction of lesson papers.

If you are a fire commissioner, city manager, fire chief or fire department officer, or if you hold any other administrative position in your local government, or aspire to such position—

KEEP AHEAD OF YOUR JOB

by enrolling in a Practical Correspondence Course in

FIRE ADMINISTRATION

Outline of Course

The Municipal Fire Problem.
Fire Insurance Classification of Cities.
Organization for Fire Protection.
Personnel Administration.
Water Supply for Fire Service.
Department Buildings and Equipment.
Distribution of Equipment and Personnel.
Fire Alarm Signaling Systems.
The Technique of Fire Fighting.
Legal Aspects of Fire Prevention.
Work of Municipal and State Fire Prevention Agencies.
Fire Investigation and Incendiarism.
Records and Measurement of Results.

Write

Institute for Training in Municipal Administration
1313 EAST 60TH ST., CHICAGO, ILL.

Where a "penny wise" policy caused the loss of this

$250,000 SCHOOL

A Six Hundred Dollar Investment Might Have Saved This

THE officials of a certain town in Maine turned down the suggestion to install an automatic alarm system connected with the fire department circuits as too exorbitant. The cost would have been only $600.

This fire was first noted by a citizen who ran past six alarm boxes to the fire station causing another of those DELAYED ALARMS. When the firemen did arrive the interior of the school was a mass of flames and the roof had caved in.

No community can have too many conspicuously and accessibly placed fire alarm boxes. This precaution will save precious minutes and cut down fire losses appreciably.

Check up on conditions in your locality - recommend that automatic alarm systems be installed in all schools and important buildings. Gamewell engineers will advise you.

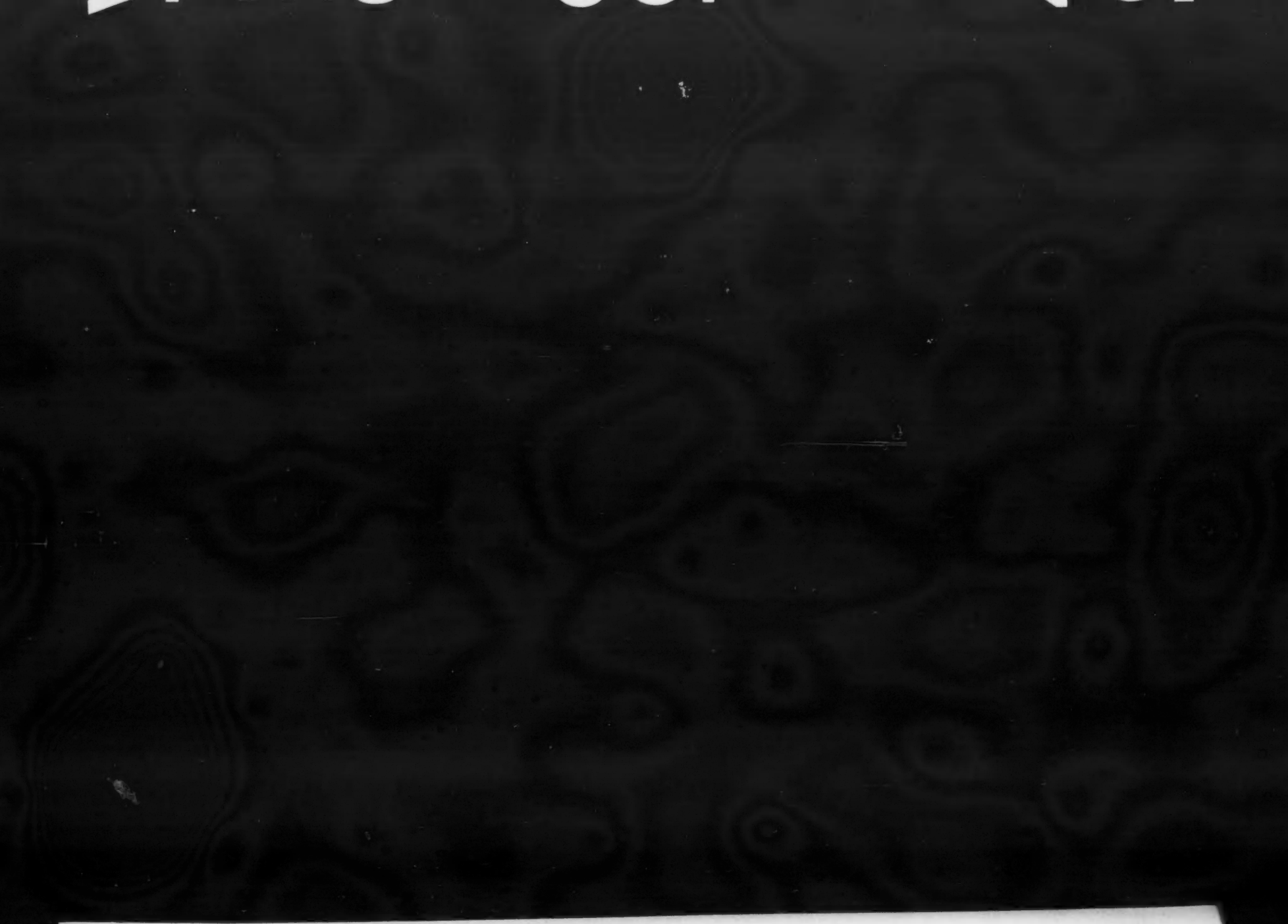
GAMEWELL VITAGUARD

for volunteer fire departments

A simple and economical fire alarm system consisting of one or two wire loops, street boxes and the DIAPHONE public alarm.

It costs practically nothing to operate and it requires no manual control or winding.

Write for interesting examples of what VITAGUARD has accomplished for many towns supporting volunteer departments.

THE GAMEWELL COMPANY

NEWTON UPPER FALLS, MASSACHUSETTS